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2263-63
copy 2 of 8

25 February 1963

MEMORANDUM FOR : The Record

SUBJECT : GUCART Engine Foreign Object Damage

REFERENCE : [] 2232-63, dated 18 February 1963
titled "GUCART Engine Foreign Object Damage"

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1. Since release of referenced memorandum, the following additional information concerning the engines involved has become available:

(a) Field reports concerning D-20 engines 648204 and 648210 listed on the referenced memorandum as sustaining major damage requiring overhaul now indicate that the damage is minor and has been repaired in the field.

(b) Preliminary inspection findings reported by Pratt & Whitney indicate that the major damage sustained by J75 engine 612072 was caused by a small hard object. A screw or rivet is suspected.

(c) Preliminary inspection of D-20 engine 648212 conducted 22 February indicates primary damage caused by a relatively large object of from 1 1/2 to 2 1/2 inches in diameter which broke down rapidly upon impact. Moderately extensive damage in first four compressor stages relative to noticeable lack of damage in aft five stages indicate complete decomposition of object at fourth stage or ejection of partially decomposed object through engine bleed bypass system between fourth and fifth stages. Ground metallic particles found in turbine believed to result from damage sustained by compressor is being laboratory analyzed along with other unidentified debris and certain selected engine parts.

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Development Division
CSA-ID/R

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